

# Joel Stapleton

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## Education

- ± **University of Illinois at Chicago** Chicago, IL  
*Ph.D. in Pure Math expected in Spring 2021 under Benjamin Antieau.* 2015 - Present
- ± **Wheaton College** Wheaton, IL  
*B.S. in Mathematics, Minor in Computer Science, Minor in Music.* 2011 - 2015

## Previous employment

- ± 2015 Department of Defense intern.
- ± 2012 - 2015 Private mathematics tutor.

## Research interests

- ± Brauer splitting, algebraic K-theory et al.: excision, trace methods.

## Publication

- ± *Weibel's conjecture for twisted K-theory*, Annals of K-theory **5** (2020), no. 3, 621-637.

## Awards

- ± 2018 - 2020 Research Training Groups Fellowship, NSF Award DMS-1246844.
- ± 2019 Student Presenter Award.

## Talks

- ± University of Kentucky / Vanderbilt online seminar (upcoming 10/22) - "Weibel's conjecture for twisted algebraic K-theory".
- ± Northwestern University Topology Seminar: "Weibel's conjecture for twisted algebraic K-theory".
- ± European Talbot 2019 - Computing  $K(\mathbb{F}_p[x]/(x^2), (x))$  via Martin Speirs (after Hesselholt and Madsen).
- ± UIC Graduate Homotopy Theory Seminar - Heights of formal groups and the induced stratification of  $\mathcal{M}_{\text{FG}}$ .
- ± Vitamin  $K_1$ : Kerz Strunk Tamme - The pro-excision argument of Kerz, Strunk and Tamme in the proof of Weibel's conjecture.
- ± UIC Graduate Student Colloquium - Introduction to Algebraic K-theory.
- ± UIC Graduate Algebraic Geometry Seminar - Vector bundle classification results through  $\mathbb{A}^1$ -homotopy theory.

- ± UIC Graduate Infinity Categories Seminar - Limits and Colimits in Infinity Categories.
- ± UIC Graduate Algebraic  $K$ -theory Seminar - Hochschild and Cyclic Homology.
- ± UIC Graduate Algebraic Geometry Seminar - An Introduction to the  $K$ -Theory of Schemes.

## Conferences

- ± 2019 Midwest Topology at University of Chicago in celebration of Peter May.
- ± 2019 European Talbot at Bacharach Germany.
- ± 2019 Non-commutative Geometry conference at Northwestern University.
- ± 2019 MSRI Derived Algebraic Geometry and its Applications.
- ± 2018 Equivariant homotopy theory and  $K$ -theory/Motivic homotopy groups of spheres III at Berlin.
- ± 2018 Vitamin  $K_1$ : Kerz-Strunk-Tamme. <https://dantie1.people.uic.edu/vk1.html>.
- ± 2018 Winter Midwest Topology Seminar at Northwestern.
- ± 2018 Algebraic Geometry and its Broader Implications: A celebration of Robin Hartshorne's 80th and the book's 40th birthday.
- ± 2017 Midwest Summer School on Trace Methods in Algebraic  $K$ -Theory.
- ± 2017 Homotopy Theory: Tools and Applications.
- ± 2016 Local & Global Methods in Algebraic Geometry (in honor of Lawrence Ein's 60th).
- ± 2015 Syzygies of Algebraic Varieties.

## Teaching Assistant Experience

- ± Introduction to Computer Science; Calculus I, II, and III; Linear Algebra; Modern Algebra I and II.

## Service to the Department

- ± 2018 Graduate Student Geometry and Topology Conference: I helped in the execution (but not the organization) of this conference.
- ± 2017-2018 Co-organizer for Graduate Algebraic Geometry Seminar (GAGS).